

August 19, 2025

City of Tualatin
Attention: Mike McCarthy
18880 SW Martinazzi Avenue
Tualatin, OR 97062

Re: **Lam TUX**
TIA Supplemental Letter
Project Number 2250180.00

Dear Mike:

Mackenzie has prepared this supplemental letter to address comments and questions related to and to correct a few items in the revised Traffic Impact Analysis (TIA) dated July 21, 2025, for the proposed laboratory/research and development building, office building, and utility building at the Lam Research campus in Tualatin, Oregon. The updated information does not change the overall analysis and conclusion that the existing transportation system is adequate to accommodate the proposed development with the recommended improvements.

CORRECTIONS

Page 3

The list of Analysis Scenarios includes an extra year of 2027. The third scenario in the list should read “2030 Pre-Development without the TUX project.”

Page 9

In the Background Traffic Growth, the rate was applied over five years, not three. The second sentence should read “a linear 1% annual growth rate over five years” and the last sentence should be corrected to read “background growth from 2025 to 2030.” These volume adjustments are correct in the analysis.

Page 11

The trip generation table did not include the correct Employee number and volumes generated by the project, which are in the corrected trip generation table provided below. The correct numbers below were used in the analysis and are noted elsewhere in the TIA, including the text directly below the incorrect table. This correction does not change results.

TABLE 3 – PROPOSED TRIP GENERATION								
ITE Land Use	Employees	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Research and Development Center (LUC 860)	600	207	37	244	28	205	233	2,036

Page 14

In the third paragraph of the Sight Distance Evaluation, the posted speed on SW Leveton Drive needs to be corrected to 40 mph. The posted speed on SW Leveton Drive is 35 MPH to the west of SW 118th Avenue, but 40 MPH along the project frontage. This error has no significant impact on the analysis because sight distance was measured for a 40 MPH speed.

Page 20

In Table 7 for the intersection of SW 115th Avenue/SW Tualatin Road, a storage length of 60' was listed for the Eastbound and Westbound Left (EBL and WBL) turning movements but the effective length is closer to 400'. Queues do not exceed 50' for these movements in any scenario.

The westbound left turn queue for the 2030 Pre-Development Scenario is incorrectly listed as 350'; It should be 50'.

Page 21

In Table 7 for the intersection of SW Leveton/New Access, the storage length for southbound movements should be 100'. It is listed as "TBD". As noted in the table, this length is not exceeded by queues in any scenario.

Page 21

In Table 7 for the for the intersection of SW Tualatin Road/SW Teton Avenue, the striped storage listed for the northbound (NB) movement should be an effective length of 1,000'. The through lane terminates as a right turn lane and has no striped storage length.

CLARIFICATIONS AND NEW INFORMATION

Page 7

Though all required crash data is available in the individual intersection summaries, the City requested adding summary language to capture key details. The requested crash summary is provided below:

A review of the last five years of available crash data between 2019 and 2023 showed that there were no fatalities and minimal serious injuries (Injury Type A or B) reported in the study area. There were five crashes involving pedestrians and bicycles including one pedestrian crash at SW Tualatin Road/SW 124th Avenue resulting in a Type C injury and one bicycle crash at the Center Access on SW Leveton Drive resulting in a Type A injury. At the intersection of OR 99W/SW Durham Road two pedestrian crashes and a bicycle crash were reported. All intersection crash rates are below the rate of 1.00 crashes per million entering vehicles, as well as below ODOT's 90th percentile crash rate. ODOT's Analysis Procedures Manual Chapter 4, notes further analysis should be provided when the 90th percentile is exceeded.

Page 7

The language about protected left turns at SW 124th Avenue/SW Tualatin Road could be misinterpreted because the southbound left turn movement has both protected and permitted phases. While the majority of crashes are related to this movement, it also involves two of the highest volume movements at the intersection. Overall, the crash rate is well below 1.00 crashes/MEV and also below the ODOT threshold for further analysis.

Page 9

Under the Planned Transportation Improvements section, it should be clarified that the City's plans at the intersection of SW Tualatin Road/SW 115th Avenue could also include a roundabout in addition to a signal.

Page 9

We noted with SW Tualatin-Sherwood Road currently under construction for a widening project, there appears to be an increase in volumes on Tualatin Road. Looking at volumes on Tualatin Road prior to the start of construction, it appears the volumes during the peak hour can be as high as 100-200 in one direction, but it is difficult to determine because of volume fluctuations due to the pandemic. When this construction is complete, some drivers are anticipated to shift back to using Tualatin-Sherwood instead of Tualatin Road, resulting in volumes lower than experienced today, even with the addition of this project.

Page 11

City staff requested a summary of the parking changes with the project be included in the TIA. A similar summary was provided in the prior version of the TIA. The following summarizes the changes:

There are approximately 1,784 parking spaces existing at the Lam campus after construction of Building G and its new parking spaces at the southeast corner of the campus. A net increase of 544 spaces is proposed, bringing the total to 2,328 spaces. With the construction of the new buildings, 468 existing spaces will be removed. New parking spaces total 1012, including 23 spaces added back next to Building H, with the remainder spread out along the north and west sides of the campus in new lots and an expansion of the north lot.

Page 13

The existing north driveway on SW 108th Avenue has been in use for access to the north end of the campus and will be used by vehicles parking in the new northeast lot, resulting in it serving approximately 6% of total campus trips after development of the project. The driveway is located approximately 300' south of Tualatin Road and is on a lower classification minor arterial road, so meets City of Tualatin standards. As shown in the TIA, the driveway will not result in adverse impacts to the functionality of adjacent roadways and intersections.

Page 16

HCM 7 was used as the default methodology/output, but for some situations, such as unique signal phasing, results will not print. When this happens, HCM 2000 results are used.

Overall v/c ratios for signalized intersections under ODOT jurisdiction were calculated using ODOT's calculator tool when the required information from HCM 7 would print. When HCM 7 results were not available, intersection v/c results were obtained from HCM 2000.

At two intersections, we found the modeling results were significantly different from existing conditions, and utilized alternate methods as noted below to better reflect actual conditions:

- At the intersection of SW Hazelbrook Road/OR 99W, we found much lower levels of delay and queuing for the right turn movement from Hazelbrook, so we measured gap acceptance and found it was closer to six seconds than the seven seconds used in the model. Because HCM 7 does not allow for adjusting the gap acceptance, HCM 2000 results were reported instead.
- At the intersection of SW 115th Avenue/SW Tualatin Road, SimTraffic delay outputs were found to be more consistent with observed conditions.
- At the intersection of SW 115th Avenue/SW Tualatin Road, HCM 2000 outputs were found to be more consistent with observed conditions.

Page 19

We found that SimTraffic results showed queues backing up from OR 99W along SW Hazelbrook Road to SW 115th Avenue. This is inconsistent with observed queuing for existing conditions. Queuing results from HCM 7 are much closer to observed conditions and are reported. The analysis methods were calibrated as allowed per City standards.

Page 19

Queuing results in Table 7 for the southbound left turn lane on SW 124th Avenue at SW Tualatin Road show inconsistent results, where queues appear to decrease when volumes increase from Existing to Pre-Development and Post-Development scenarios. It should be noted the change in left turn volume between scenarios is small in comparison with the total volume, so little variation would be expected. Because SimTraffic results can fluctuate between runs and with rounding to the nearest 25 feet, a difference of one vehicle in the queue is common. Overall, the queue length is estimated to be 425' or less regardless of the scenario.

Page 19

City staff noted vehicle queues reported in Table 7 for the northbound right turn lane and southbound left turn lane on SW 124th Avenue at SW Tualatin Road are longer than available storage lengths.

For the northbound right turn lane, the value reported in the table reflects the location of a right turning vehicle stuck in a queue in the through lane beyond the beginning of the right turn lane, which occurs in the PM peak hour when northbound volumes are highest. Because there is no capacity constraint nor safety concern, there is no need to lengthen the turn lane for an occasional vehicle that must wait in the through lane.

For the left turn lane, this high volume movement may at times spill back towards Highway 99W. While the Lam project will add few left turns, it will add more trips to the southbound through movement at the Tualatin Road intersection. We found the vehicle queues can be reduced below the current 425' experienced in the AM peak hour by coordinating the signal at Tualatin Road with the Highway 99W signal to provide a green light for the southbound left turn to Tualatin Road when vehicles arrive from the westbound to southbound left turn movement from Highway 99W.

Page 23

The City has noted that the pedestrian volumes reported along Tualatin Road and adjacent to the Lam campus seem low, citing observations of Lam employees walking on the adjacent sidewalks during the day. The observed pedestrian activity is likely at lunchtime and not during the peak commute times that are addressed in the report. Further the reported pedestrian volumes are those crossing an intersection or driveway approach during AM or PM peak hour. Reported results for a single hour include 14 pedestrians on one side of SW Tualatin Road and 12 pedestrians crossing the East Lam Access on SW Leveton Drive. It is possible that pedestrian volumes are higher at other locations and at different times.

Page 24

We included a recommendation to coordinate left turn movements from OR 99W to SW Tualatin Road but did not include any analysis showing the benefit. We have since prepared an analysis of the coordination.

Without coordination, the southbound left turn lane queue was found to extend back to the Highway 99W intersection, or about 425' in all scenarios. The TUX project only adds 20 trips to this left turn movement from SW 124th Avenue to Tualatin Road, so volumes don't change much between the scenarios. Vehicles turning left from SW 124th Avenue onto Tualatin Road are primarily arriving from Highway 99W in the southbound (westbound at this intersection) direction. Travel time between the left turn lane stop bars is estimated to be 13-16 seconds.

We found that allowing for a short amount of green time ahead of vehicles arriving allows for queued vehicles to begin clearing the lane first. An offset of 10 seconds between the start of green for these two left turn movements results in the shortened queue of 350' for the AM peak hour, near the effective length of the striped turn lane and better than existing conditions. A queue of 250' is expected in the PM peak hour.

The coordinated queuing results are attached (Attachment A).

Page 24

We wanted to provide a clear statement addressing the approval criteria, that the existing transportation system is adequate to accommodate the proposed development with the recommended improvements. See the attached email from Tualatin City Engineer Mike McCarthy (Attachment B).

Please let us know if you have any further questions.

Sincerely,



Brent Ahrend, PE
Associate Principal | Traffic Engineer















Enclosure(s): Attachment A – Coordinated Queuing results
Attachment B – Mike McCarthy Email

- c: Steve Koper, Kim McMillan, Mike McCarthy, Abby McFetridge, Tony Doran, Hayden Ausland – City of Tualatin
Jinde Zhu – Washington County
John Russell – ODOT
Jennifer Otterness Majid, Mike Halvorson, Stefanie McEvers, Danielle Nonamaker, Paul Roessler, Todd Fosler – Lam Research
Joel Rabinovitz, Garth Appanaitis – DKS Associates
Suzannah Stanley, Bill Bezio, Megan Diaz, Mike Rueter, Clara Layton, Nicole Burrell – Mackenzie

Lanes, Volumes, Timings

2: SW 124th Avenue & SW Tualatin Road

08/13/2025

							
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø8
Lane Configurations							
Traffic Volume (vph)	42	224	274	41	860	922	
Future Volume (vph)	42	224	274	41	860	922	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	25	300		150	200		
Storage Lanes	1	0		1	1		
Taper Length (ft)	100				200		
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95	
Ped Bike Factor				0.98	1.00		
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1597	1524	3195	1495	1752	3505	
Flt Permitted	0.950				0.384		
Satd. Flow (perm)	1597	1524	3195	1458	706	3505	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		157		47			
Link Speed (mph)	35		45			30	
Link Distance (ft)	615		1078			583	
Travel Time (s)	12.0		16.3			13.3	
Confl. Peds. (#/hr)				2	2		
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	
Heavy Vehicles (%)	13%	6%	13%	8%	3%	3%	
Adj. Flow (vph)	48	257	315	47	989	1060	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	48	257	315	47	989	1060	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	12		12			12	
Two way Left Turn Lane	Yes						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Number of Detectors	3	3	2	3	2	3	
Detector Template							
Leading Detector (ft)	81	81	326	81	21	326	
Trailing Detector (ft)	5	5	160	5	5	75	
Detector 1 Position(ft)	5	5	160	5	5	160	
Detector 1 Size(ft)	6	6	6	6	6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	15	15	320	15	15	320	
Detector 2 Size(ft)	6	6	6	6	6	6	
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 3 Position(ft)	75	75		75		75	

Lanes, Volumes, Timings

2: SW 124th Avenue & SW Tualatin Road

08/13/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø8
Detector 3 Size(ft)	6	6		6		6	
Detector 3 Type	Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	
Detector 3 Channel							
Detector 3 Extend (s)	0.0	0.0		0.0		0.0	
Turn Type	Perm	pt+ov	NA	Perm	D.P+P	NA	
Protected Phases		4 5	6		5	2	8
Permitted Phases	4			6	6		
Detector Phase	4	4 5	6	6	5	2	
Switch Phase							
Minimum Initial (s)	5.0		10.0	10.0	10.0	10.0	1.0
Minimum Split (s)	10.0		30.5	30.5	15.0	15.5	36.0
Total Split (s)	36.0		30.5	30.5	53.5	84.0	36.0
Total Split (%)	30.0%		25.4%	25.4%	44.6%	70.0%	30%
Maximum Green (s)	31.0		25.0	25.0	48.5	78.5	32.0
Yellow Time (s)	4.0		4.5	4.5	4.0	4.5	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0		-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0		4.5	4.5	4.0	4.5	
Lead/Lag			Lead	Lead	Lag		
Lead-Lag Optimize?			Yes	Yes	Yes		
Vehicle Extension (s)	4.0		4.5	4.5	4.0	4.5	2.0
Recall Mode	None		Min	Min	C-Max	Max	None
Walk Time (s)			10.0	10.0			9.0
Flash Don't Walk (s)			15.0	15.0			23.0
Pedestrian Calls (#/hr)			5	5			2
Act Effect Green (s)	14.4	97.1	18.4	18.4	93.6	97.1	
Actuated g/C Ratio	0.12	0.81	0.15	0.15	0.78	0.81	
v/c Ratio	0.25	0.20	0.64	0.18	0.82	0.37	
Control Delay (s/veh)	47.4	1.7	53.3	12.8	14.1	2.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.2	
Total Delay (s/veh)	47.4	1.7	53.3	12.8	14.1	2.8	
LOS	D	A	D	B	B	A	
Approach Delay (s/veh)	8.9		48.0			8.3	
Approach LOS	A		D			A	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 10 (8%), Referenced to phase 5:SBL, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay (s/veh): 13.6

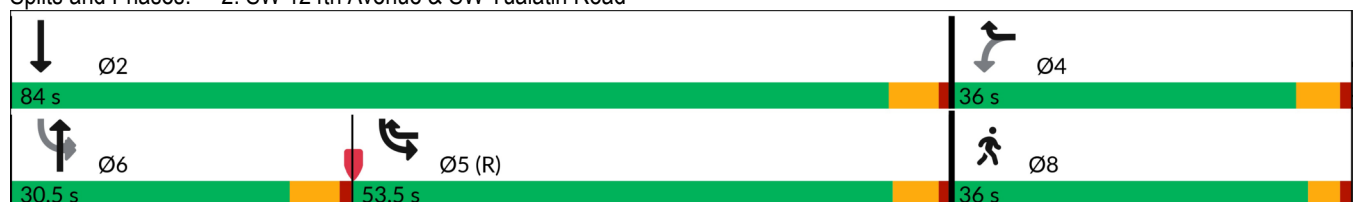
Intersection LOS: B

Intersection Capacity Utilization 71.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 2: SW 124th Avenue & SW Tualatin Road



Queuing and Blocking Report

2030 Post-Development

08/13/2025













Intersection: 2: SW 124th Avenue & SW Tualatin Road

Movement	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	T	T	R	L	T	T
Maximum Queue (ft)	113	178	215	304	84	399	461	160
Average Queue (ft)	49	60	86	159	30	189	66	56
95th Queue (ft)	98	138	169	269	69	358	269	131
Link Distance (ft)		560	1066	1066			478	478
Upstream Blk Time (%)							0	
Queuing Penalty (veh)							2	
Storage Bay Dist (ft)	25				150	200		
Storage Blk Time (%)	43	12		14		9	0	
Queuing Penalty (veh)	96	5		6		43	2	

Lanes, Volumes, Timings

2: SW 124th Avenue & SW Tualatin Road

08/13/2025

							
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø8
Lane Configurations							
Traffic Volume (vph)	39	649	986	49	423	419	
Future Volume (vph)	39	649	986	49	423	419	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	25	300		150	200		
Storage Lanes	1	0		1	1		
Taper Length (ft)	100				200		
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95	
Ped Bike Factor				0.96			
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	1583	3539	1583	1770	3471	
Flt Permitted	0.950				0.095		
Satd. Flow (perm)	1770	1583	3539	1526	177	3471	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		13		29			
Link Speed (mph)	35		45			30	
Link Distance (ft)	615		1082			583	
Travel Time (s)	12.0		16.4			13.3	
Confl. Peds. (#/hr)				7	7		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	
Heavy Vehicles (%)	2%	2%	2%	2%	2%	4%	
Adj. Flow (vph)	41	690	1049	52	450	446	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	41	690	1049	52	450	446	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	12		12			12	
Two way Left Turn Lane	Yes						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Number of Detectors	3	3	2	3	2	3	
Detector Template							
Leading Detector (ft)	81	81	326	81	21	326	
Trailing Detector (ft)	5	5	160	5	5	75	
Detector 1 Position(ft)	5	5	160	5	5	160	
Detector 1 Size(ft)	6	6	6	6	6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	15	15	320	15	15	320	
Detector 2 Size(ft)	6	6	6	6	6	6	
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 3 Position(ft)	75	75		75		75	

Lanes, Volumes, Timings

2: SW 124th Avenue & SW Tualatin Road

08/13/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø8
Detector 3 Size(ft)	6	6		6		6	
Detector 3 Type	Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	
Detector 3 Channel							
Detector 3 Extend (s)	0.0	0.0		0.0		0.0	
Turn Type	Perm	pt+ov	NA	Perm	D.P+P	NA	
Protected Phases		4 5	6		5	2	8
Permitted Phases	4			6	6		
Detector Phase	4	4 5	6	6	5	2	
Switch Phase							
Minimum Initial (s)	5.0		10.0	10.0	10.0	10.0	1.0
Minimum Split (s)	10.0		30.5	30.5	15.0	15.5	36.0
Total Split (s)	36.0		44.0	44.0	40.0	84.0	36.0
Total Split (%)	30.0%		36.7%	36.7%	33.3%	70.0%	30%
Maximum Green (s)	31.0		38.5	38.5	35.0	78.5	32.0
Yellow Time (s)	4.0		4.5	4.5	4.0	4.5	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0		-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0		4.5	4.5	4.0	4.5	
Lead/Lag			Lead	Lead	Lag		
Lead-Lag Optimize?			Yes	Yes	Yes		
Vehicle Extension (s)	4.0		4.5	4.5	4.0	4.5	2.0
Recall Mode	None		Min	Min	C-Max	Max	None
Walk Time (s)			10.0	10.0			9.0
Flash Don't Walk (s)			15.0	15.0			23.0
Pedestrian Calls (#/hr)			5	5			2
Act Effect Green (s)	22.0	73.4	42.1	42.1	86.0	89.5	
Actuated g/C Ratio	0.18	0.61	0.35	0.35	0.72	0.75	
v/c Ratio	0.13	0.71	0.84	0.09	0.64	0.17	
Control Delay (s/veh)	37.3	20.7	43.6	15.1	10.0	2.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	37.3	20.7	43.6	15.1	10.0	2.3	
LOS	D	C	D	B	B	A	
Approach Delay (s/veh)	21.6		42.2			6.2	
Approach LOS	C		D			A	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 10 (8%), Referenced to phase 5:SBL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay (s/veh): 24.9

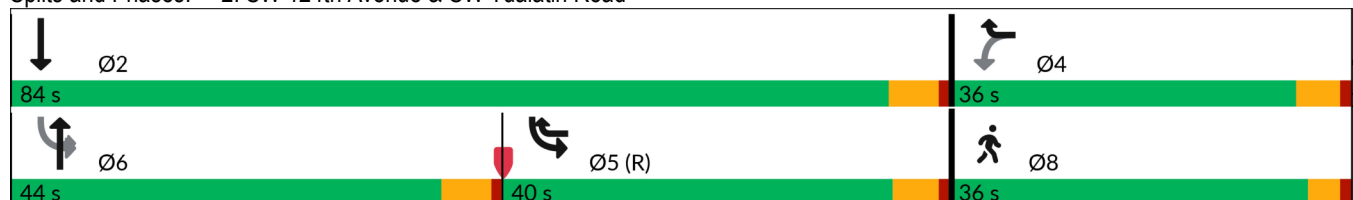
Intersection LOS: C

Intersection Capacity Utilization 74.5%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 2: SW 124th Avenue & SW Tualatin Road



Queuing and Blocking Report

2025 Post-Development

08/13/2025

Intersection: 2: SW 124th Avenue & SW Tualatin Road

Movement	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	T	T	R	L	T	T
Maximum Queue (ft)	124	588	799	874	335	300	220	126
Average Queue (ft)	40	386	409	535	118	156	25	45
95th Queue (ft)	104	602	841	966	350	252	110	102
Link Distance (ft)		560	1070	1070			478	478
Upstream Blk Time (%)		5	1	5			0	
Queuing Penalty (veh)		0	0	0			0	
Storage Bay Dist (ft)	25				150	200		
Storage Blk Time (%)	26	45		53		4	0	
Queuing Penalty (veh)	171	18		26		9	0	

From: Mike McCarthy
Sent: Tuesday, August 5, 2025 8:44 AM
To: Keith Leonard
Cc: Hayden Ausland
Subject: IMP 24-0001 Analysis and Findings

Hi Keith,

The existing utilities and transportation system are adequate, or can be made adequate through conditions, to support the proposed Lam development.

Mike McCarthy
Tualatin City Engineer
Phone: 503.691.3674
Cell: 971.666.0000